

REMARKS

Applicant has reviewed and considered the Office Action dated October 29, 2003, and the references cited therewith.

Claims 1, 3, 4, 9, 11, 12, and 20 are amended. Claims 1-22, 56-65, and 73-77 remain pending in this application.

§112 (¶1) Rejection of the Claims

Claim 3 was rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement.

Applicant respectfully traverses the assertion that claim 3 fails to comply with the written description requirement, but chose to amend claim 3 to better describe the recited subject matter. Applicant submits that the Specification of the present Application provides sufficient support for locating a plurality of heart sound detecting sensors internal to an implantable housing. The Specification states, for example:

[I]t is to be understood that the embodiments may be combined, or that other embodiments may be utilized and that structural, logical and electrical changes may be made without departing from the spirit and the scope of the present invention. (page 4, line 29-page 5, line 2)

Thus, teachings in portions of the Specification, such as on page 7, lines 12-29, are believed to satisfy the written description requirement.

Applicant respectfully requests reconsideration and allowance of claim 3.

§112 (¶2) Rejection of the Claims

Claims 1-8 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 1 was amended to better describe the recited subject matter. It is believed that the amendment has addressed the issue stated in the rejection of claim 1-8.

Applicant respectfully requests reconsideration and allowance of claims 1-8.

§102 Rejection of the Claims

Claims 9-11, 13-16, and 19-22 were rejected under 35 USC § 102(b) as being anticipated by Carlson et al. (U.S. Patent No. 5,792,195).

Claim 9

Claim 9 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 9, Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Carlson, among other things, a teaching or suggestion of an external device including the second interface circuit, the output device configured to simultaneously output multiple signals, and the second control circuit configured to receive the first data and the second data via the interface circuit and generate control signals causing the output device to simultaneously output at least the first sensed signals and the second sensed signals, as recited in claim 9.

Applicant respectfully requests reconsideration and allowance of claim 9.

Claims 10-11, 13-16, and 19

Applicant respectfully traverses the rejection. Claims 10-11, 13-16, and 19 depend on claim 9 and are believed to be allowable for at least the reason stated above for claim 9.

Applicant respectfully requests reconsideration and allowance of claims 10-11, 13-16, and 19.

Claim 20

Claim 20 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 20, Applicant respectfully traverses the rejection. Applicant is unable to find in the cited portions of Carlson, among other things, a teaching or suggestion of an external device including the second interface circuit, the output device configured to simultaneously output multiple signals, and the second control circuit configured to receive the first data and the second data via the interface circuit and generate control signals causing the output device to simultaneously output at least the first sensed signals and the second sensed signals, as recited in claim 20.

Applicant respectfully requests reconsideration and allowance of claim 20.

Claims 21-22

Applicant respectfully traverses the rejection. Claims 21-22 depend on claim 20 and are believed to be allowable for at least the reason stated above for claim 20.

Applicant respectfully requests reconsideration and allowance of claims 21-22.

§103 Rejection of the Claims Using Carlson and Lekholm

Claims 1-2, 4, 8, and 73-75 were rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Lekholm (U.S. Patent No. 4,763,646).

Claim 1

Claim 1 was amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection and submits that cited references do not disclose the recited subject matter. For example, Applicant is unable to find in the cited portions of Carlson and Lekholm, among other things, a control circuit that provides for a first processing path including a first band-pass filter, a rectifier, a low-pass filter, and a first ensemble averager to process the plurality of sensed signals for machine detection of the heart sounds and a second processing path including a second band-pass filter and a second ensemble averager to process the plurality of sensed signals for visual display of the heart sounds, as recited in claim 1.

Applicant respectfully requests reconsideration and allowance of claim 1.

Claims 2, 4, 8, and 73-75

Applicant respectfully traverses the rejection. Claims 2, 4, 8, and 73-75 depend on claim 1 and are believed to be allowable for at least the reason stated above for claim 1.

Applicant respectfully requests reconsideration and allowance of 2, 4, 8, and 73-75.

§103 Rejection of the Claims Using Carlson, Lekholm, and Sholder

Claims 5-6 were rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792, 195) in view of Lekholm (U.S. Patent No. 4,763,646) as applied to claim1, and further in view of Sholder et al. (U.S. Patent No. 5,899,928).

Applicant respectfully traverses the rejection. Claims 5-6 depend on claim 1 and are believed to be allowable for at least the reason stated above for claim 1.

Applicant respectfully requests reconsideration and allowance of claims 5-6.

§103 Rejection of the Claims Using Carlson, Lekholm, and Turcott

Claim 7 was rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Lekholm (U.S. Patent No. 4,763,646) as applied to claim 1, and further in view of Turcott (U.S. Patent No. 6,409,675).

Applicant respectfully traverses the rejection. Claim 7 depends on claim 1 and is believed to be allowable for at least the reason stated above for claim 1.

Moreover, Applicant respectfully traverses the assertion that “it would have been obvious to one with ordinary skill in the art at the time the invention was made to transmit raw data rather than processed data because it would be far simpler and the step of processing the data would be omitted.” Applicant requests a reference pursuant to M.P.E.P. § 2144.03 to support this assertion or its withdrawal in the next official communication.

Applicant respectfully requests reconsideration and allowance of claim 7.

§103 Rejection of the Claims Using Carlson and Lekholm

Claim 12 was rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Lekholm (U.S. Patent No. 4,763,646).

Applicant respectfully traverses the rejection. Claim 12 depends on claim 9 and is believed to be allowable for at least the reason stated above for claim 9.

Applicant respectfully requests reconsideration and allowance of claim 12.

§103 Rejection of the Claims Using Carlson and Tockman

Claim 17 was rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Tockman et al. (U.S. Patent No. 5,540,727).

Applicant respectfully traverses the rejection. Claim 17 depends on claim 9 and is believed to be allowable for at least the reason stated above for claim 9.

Applicant respectfully requests reconsideration and allowance of claim 17.

§103 Rejection of the Claims Using Carlson and Turcott

Claim 18 was rejected under 35 USC § 103(a) as being unpatentable over Carlson et al. (U.S. Patent No. 5,792,195) in view of Turcott (6,409,675).

Applicant respectfully traverses the rejection. Claim 18 depends on claim 9 and is believed to be allowable for at least the reason stated above for claim 9.

Moreover, Applicant respectfully traverses the assertions that “it would have been obvious to one with ordinary skill in the art at the time the invention was made to transmit raw data rather than processed data because it would be far simpler and the step of processing the data would be omitted.” Applicant requests a reference pursuant to M.P.E.P. § 2144.03 to support this assertion or its withdrawal in the next official communication.

Applicant respectfully requests reconsideration and allowance of claim 18.

§103 Rejection of the Claims Using Turcott, Lekholm, and Tockman

Claim 56 was rejected under 35 USC § 103(a) as being unpatentable over Turcott (U.S. Patent No. 6,409,675) in view of Lekholm (U.S. Patent No. 4,763,646) and Tockman et al. (U.S. Patent No. 5,540,727).

Applicant respectfully traverses the rejection and submits that the Office Action has not set forth a proper *prima facie* case of obviousness. The Office Action states:

“With respect to claim 56, Turcott shows a method of outputting heart sounds using an implanted system including receiving first data representative of detected heart sounds (Col. 7, lines 37-40), applying control signals to an output device to cause the output device to generate outputs representative of the detected heart sounds (Col. 13, lines 60-65).”

Claim 56 recites:

A method of outputting heart sounds using an implanted sensor, comprising:
detecting heart sounds using a plurality of first implanted sensors;
generating data representative of the heart sounds using ensemble averaging; and
transmitting data representative of the heart sounds to an external system.

Applicant respectfully submits that the rejection does not clearly set forth alleged elements of Turcott that correspond to the subject matter of claim 56 and requests a clarification in the next official communication.

The Office Action specifically cited “Col. 3, line 66-Col. 4, line 4, lines 49-55” of Tockman. Col. 4, lines 49-55 of Tockman do not appear to support the assertion made in the

Office Action. It is unclear to which column the "lines 49-55" were meant to belong. Applicant respectfully requests a clarification in the next official communication.

Pursuant to M.P.E.P. § 2143.01, the fact that references can be combined or modified does not render the resultant combination or modification obvious unless the prior art also suggests the desirability of the combination or modification. Applicant is unable to find in Turcott a suggestion or motivation to detect heart sound using the plurality of heart sound sensors of Lekholm. Applicant is also unable to find in Turcott or Lekholm a suggestion or motivation to generate data representative of heart sounds using the ensemble averaging of Tockman. Thus, it is believed that the proposed combination of references fails to suggest the desirability of such modifications, and is therefore not a proper basis for an obviousness rejection.

Applicant respectfully requests reconsideration and allowance of claim 56.

§103 Rejection of the Claims Using Turcott, Lekholm, Tockman, and Little

Claims 57-58 were rejected under 35 USC § 103(a) as being unpatentable over Turcott (U.S. Patent No. 6,409,675) in view of Lekholm (U.S. Patent No. 4,763,646) and Tockman et al. (U.S. Patent No. 5,540,727) as applied to claim 56, and further in view of Little et al. (U.S. Patent No. 4,628,939).

Applicant respectfully traverses the rejection. Claims 57-58 depend on claim 56 and are believed to be allowable for at least the reasons stated above for claim 56.

Applicant respectfully requests reconsideration and allowance of claims 57-58.

Allowable Subject Matter

Applicant acknowledges the allowance of claims 59-65 and 76-77.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6912 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743


Respectfully submitted,

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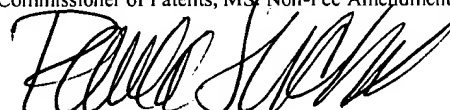
Date Jan. 29, 2004

By 
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner of Patents, MS, Non-Fee Amendment, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29 day of January, 2004.



Name



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